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User's Manual

KVM CONSOLE EXTENDER

Model #: B013-000

NOTE: Follow these installation and operating procedures to ensure correct performance and to prevent damage to this unit or to its connected devices.

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Overview

Because the B013-000 Console Extender System allows access to a computer system from a remote console (keyboard, monitor, and mouse), it is perfect for factory and construction sites, or any type of installation where the console needs to be kept in a conveniently accessible location, but you want the system equipment to reside in a safe place - away from dust, dirt, and harsh environmental influences.

The B013-000 System is also useful for control and security purposes, where you can have the system unit in a secure area at the same time that you put the console in a location that offers convenient access.

The B013-000 Console Extender provides the ideal means to access the remote system box, since it improves on previous designs by using inexpensive Category 5 STP cable - the kind commonly used in Ethernet networks - instead of bulkier, more expensive, standard cables, and can also sense the distance to the system and automatically adjust thegain.

Category 5 cabling makes for a much neater, more convenient, more reliable data transfer connection. Setup is as easy as can be - simply connect the PC system box and local console to the Local B013-000 Module; run the STP cable to the Remote B013-000 Module (up to 150 meters away); and plug the remote console into the Remote Module.

Note: You can control numerous remote systems from a single console by combining the B013-000 with a KVM switch.

Features

- Uses Inexpensive, Reliable, Category 5 STP Ethernet Cable to Connect the Local and Remote Units
- Dual Console Operation - Control Your System From Both the Local and Remote PS/2 Keyboard, Mouse, and Monitor Consoles
- Push Button Selection of the Active Console
- High Resolution Video - Up To 1024 x 768 @ 150 m (max.)
- Supports VGA, SVGA, and Multisync Monitors
- Local Monitor Supports DDC; DDC2; DDC2B
- Automatic Gain Control

System Requirements

Consoles

- A VGA, SVGA, or Multisync monitor capable of the highest resolution that you will be using on any PC in the installation
- A PS/2 style keyboard
- A PS/2 style mouse

Note: 1. If you connect a DDC type monitor to the Local unit, the monitor that connects to the Remote unit must be able to support the highest video resolution that the DDC monitor can provide.

2. You must use the same brand and model of mouse on both the local and remote units.

PCs

The following equipment must be installed on each PC that is to be connected to the system:

With PS/2 Type Connectors:

- A VGA, SVGA or Multisync card.
- A 6-pin mini-DIN mouse port
- A 6-pin mini-DIN keyboard port

With AT Type Connectors:

- A VGA, SVGA or Multisync card.
- A DB-9 (standard serial), mouse port plus mouse adapter (part # 2A-105).*
- A 5-pin DIN (standard AT), keyboard port plus keyboard adapter (part # 2A-106).*

***** Not included - requires separate purchase.

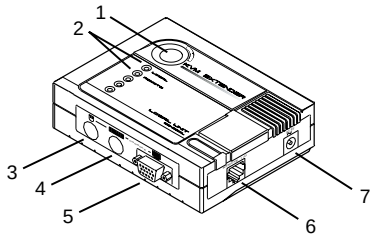
Cables

- Although it is possible to use standard extender cables to link computers with PS/2 type keyboard and mouse ports to the B013-000 Local, for optimum signal integrity and to simplify the layout, we strongly recommend that you use the high quality CS Custom KVM Cable that is provided with this package.
- It is not possible to use standard extender cables to link computers with AT type keyboard and mouse ports to the B013-000 Local. For those computers, using CS Custom KVM Cables must be used.
- Category 5 STP cable is required to connect the local and remote B013-000 units. Using cable of a lesser standard will result in degrading the video signal.

Components

The Local Unit (B013-000 Local)

Front View:



1. **Operating Mode Selection Switch**

   Pressing this button cycles you through the operating mode choices:

   - Local - only the local console can control the system(s);
   - Auto - both consoles can control the system(s)).

2. **LEDs**

   The Local Unit has two LEDs to indicate the operating status of the Local and Remote units (see p. 8, for details).

3. **Mouse Port**

   The local PS/2 mouse plugs into this connector.

4. **Keyboard Port**

   The local PS/2 keyboard plugs into this connector.

5. **Monitor Port**

   The local monitor plugs into this connector.

6. **Remote I/O**

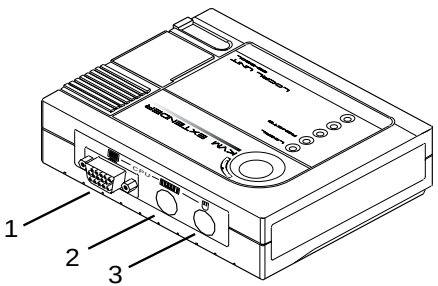
   The Category 5 twisted pair cable that connects to the Remote Unit plugs into this connector.

7. **Power Jack**

   The cable from the AC Power Adapter plugs into this jack.

The Local Unit (B013-000 Local)

Rear View



1. **Monitor Port**

   The extension cable that connects to the computer's VGA port plugs into this connector.

2. **Keyboard Port**

   The extension cable that connects to the computer's Keyboard port plugs into this connector.

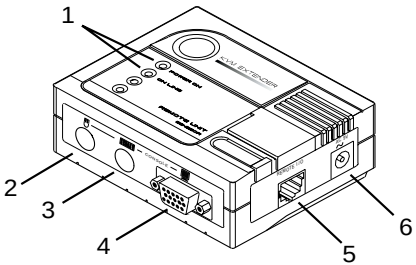
3. **Mouse Port**

   The extension cable that connects to the computer's Mouse port plugs into this connector.

Note: If you are combining the B013-000 with a KVM switch, the extension cable connects back to the respective ports on the Console section of the switch.

The Remote Unit (B013-000 Remote)

Front View



1. **LEDs**

   The Remote Unit has two LEDs (Power and On Line) to indicate the operating status of the Local and Remote units (see p. 8, for details).

2. **Mouse Port**

   The remote PS/2 mouse plugs into this connector.

3. **Keyboard Port**

   The remote PS/2 keyboard plugs into this connector.

4. **Monitor Port**

   The remote monitor plugs into this connector.

5. **Remote I/O**

   The Category 5 twisted pair cable that connects back to the Local Unit plugs into this connector.

6. **Power Jack**

   The cable from the AC Power Adapter plugs into this jack.

Installation

Setting up the Console Extender System is simply a matter of plugging in the cables:

1. Make sure that all the equipment to be connected up is powered Off.
2. Plug the cables from the local console devices (mouse, keyboard, monitor), into their ports on the Console side of the Local Unit (B013-000 Local).
3. Plug the appropriate connectors on the KVM extension cable supplied with this unit into the CPU side of the B013-000 Local. Each connector is marked with an appropriate icon to indicate which it is.

   Note: The female monitor connector is the one that plugs into the B013-000 Local.
4. Plug the connectors on the other end of the cable into the appropriate ports on the PC system (or Console section of the KVM switch - if you are using one). Each connector is marked with an appropriate icon to indicate which it is.
5. Plug either end of the Category 5 twisted pair cable into the B013-000 Local's Remote I/O port.
6. Plug one of the power adapters (supplied with this package) into an AC source; plug the adapter's power cable into the B013-000 Local's Power Jack
7. Plug the other end of the Category 5 twisted pair cable into the I/O port of the Remote Unit (B013-000 Remote).
8. Plug the cables from the remote console devices (mouse, keyboard, monitor), into their ports on the Console side of the B013-000 Remote.
9. Plug the second power adapter (supplied with this package) into an AC source; plug the adapter's power cable into the B013-000 Remote's Power Jack.

Operation

The Local and Remote Units each have two LEDs to indicate their operating status, as shown in the tables, below:

B013-000 Local (Local Unit):

LED	Operating Mode	
	Local	Auto
Local	Lights to indicate that the local console is active (the Remote LED is out).	1. Lights when the local console is active (the Remote LED is out) 2. Turns off when the remote console is active (the Remote LED turns on) 3. Flashes on and off alternately with the Remote LED when neither console is active.
Remote	The LED is Off.	1. Lights when the remote console is active (the Local LED is out) 2. Turns off when the local console is active (the Local LED turns on) 3. Flashes on and off alternately with the Local LED when neither console is active.

B013-000 Remote (Remote Unit):

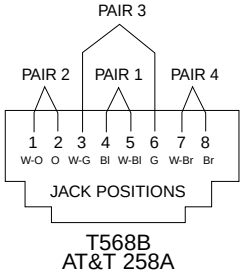
LED	Indication
Power	1. Lights steadily to indicate that the connection to the Local Unit is ok. 2. Flashes when there is a problem with the connection to the Local Unit.
On Line	1. Lights when the remote console is active. 2. Is Off when the local console is active. 3. Is Off when there is a problem with the connection to the Local Unit.

Appendix

Troubleshooting

Symptom	Action
No Video	Make sure that all cables are securely plugged into their sockets.

TP Wiring Diagram



TP Pin Assignments

Pin	Assignment
1	V OUT B
2	/V OUT B
3	V OUT G
4	V OUT R
5	/V OUT R
6	/V OUT G
7	/DO
8	DO

Specifications

Function		B013-000 Local	B013-000 Remote
Connectors	Keyboard	2 x 6 pin mini-DIN female	6 pin mini-DIN female
	Mouse	2 x 6 pin mini-DIN female	6 pin mini-DIN female
	Monitor	1 x 15 pin HDB male 1 x 15 pin HDB female	1 x 15 pin HDB female
	Unit To Unit	8P8C Jack	
LEDs		1 Local 1 Remote	1 Power On 1 On Line
Function Keys		Local/Auto Select button	N/A
Cable Length		150m [500'] (max.)	
Video Resolution		1024 x 768; DDC; DDC2; DDC2B*	
Power Consumption		AC 9V 300mA (max.)	
Housing		Plastic	
Weight		300 g	220 g
Dimensions (L x W x H)		130 x 100 x 35 mm	100 x 80 x 35 mm

***** DDC, DDC2, and DDC2B support is for the Local monitor only.

PREVENTING RADIO & TV INTERFERENCE

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: reorient or relocate the receiving antenna; increase the separation between the equipment and receiver; connect the equipment into an outlet on a circuit different from that which the receiver is connected; consult the dealer or an experienced radio/television technician for help. The user must use shielded cables and connectors with this product. Any changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1-YEAR LIMITED WARRANTY

TRIPP LITE warrants its products to be free from defects in materials and workmanship for a period of one (1) year from the date of initial purchase. TRIPP LITE's obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. To obtain service under this warranty, you must obtain a Returned Material Authorization (RMA) number from TRIPP LITE or an authorized TRIPP LITE service center. Products must be returned to TRIPP LITE or an authorized TRIPP LITE service center with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment which has been damaged by accident, negligence or misapplication or has been altered or modified in any way.

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